

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-029048**Date Inspected:** 24-Jan-2013**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** USA Hoist, Crest Hill, IL

CWI Name:	Robert Zimny		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No	
Rod Oven in Use:	Yes	No	N/A
Weld Procedures Followed:	Yes	No	N/A
Verified Joint Fit-up:	Yes	No	N/A
Approved WPS:	Yes	No	N/A
Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** SAS Tower Elevator**Summary of Items Observed:**

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at USA Hoist, Crest Hill, IL as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At USA Hoist assembly shop, this QA randomly observed USA certified welder Matt Wasiqi perform 1G (flat) position gas shielded Flux Cored Arc Welding (FCAW-G) welding Complete Joint Penetration (CJP) between C-channels C200 x 20.5/C180 x 18.2 x 2500mm long part numbers 914931/914925 and angular 6.4 x 6.4 x 9.5 x 1800mm long part number 914900-02. The C200 x 20.5 channel is being welded on the left side of the 6.4 x 6.4 angular while the C180 x 18.2 channel is being welded on the right side. The original design was 45 degree single bevel with back gouge but due to the tapering thickness of the flange of the channel, there will be limited access to perform the CJP. This QA and fellow QA Dustyn Broening discussed this situation to Mr. Bob Beck USA Hoist Engineer and Mr. Tim Moran USA Hoist Project Manager and acting Quality Control. USA Hoist decided to change the design to double bevel to get a better CJP welding access to the tapering channel flange. According to Mr. Tim Moran, this joint design change will be submitted to Caltrans for approval. Since the change of the joint design was implemented prior to Engineer's approval, an Incident Report was initiated. These channels to angle connections are intended for door enclosure frame for elevator stops at 2 (elevation 53.85 meter), stop 3 (elevation 89.85 meter) and stop 6 (elevation 156.80 meter).

The welder was noted using gas shielded FCAW-G with 1.1mm E71T-1C Familiarc DW-50 wire electrode implementing USA Hoist Welding Procedure Specification FCAW 2916. The shielding gas being used was noted a combination of 75% Argon and 25% CO2. During the shift, the working welding parameters was measured 28

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

volts and 225 amperes which deemed in compliance to the company procedure. At the end of the shift, two (2) of the three (3) identical frame for the three stops have been started but not completed.



Summary of Conversations:

This QA and fellow QA Dustyn Broening discussed the change in joint design situation to Mr. Bob Beck USA Hoist Engineer and Mr. Tim Moran USA Hoist Project Engineer and acting Quality Control. USA Hoist decided to change the design to double bevel to get a better CJP welding access to the tapering channel flange. According to Mr. Tim Moran, this joint design change will be submitted to Caltrans for approval.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Gary Thomas (916) 764-6027, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Foerder, Mike	QA Reviewer
